

REMARKS

Reconsideration and timely allowance of the pending claims, in view of the following remarks, are respectfully requested.

In the pending Office Action, the Examiner rejected claims 14, 15, and 21, under 35 U.S.C. §102(e), as being anticipated by the Kim '536 reference (U.S. Patent No. 6,377,536); rejected claims 14, 16-18, and 20-21, under 35 U.S.C. §102(e), as being anticipated by the Kim '841 reference (U.S. Patent No. 6,337,841); and rejected claim 19, under 35 U.S.C. §103(a), as being unpatentable over the Kim '841 reference in view of the Kim '760 reference (U.S. Patent No. 5,872,760).

In addition, the Examiner objected to the specification because allegedly Fig. 15A is not described in the specification.

Prior to this Amendment, claims 14-21 were pending, of which claims 14, 16, and 21 are independent. By this Amendment, claims 1-13, 19, and 22-23 have been cancelled. Applicants, however, reserve the right to protect the subject matter of the cancelled claims in subsequent applications.

Applicants have also amended independent claims 14, 16, and 21 to provide a clearer presentation of the claimed invention. Applicants submit that no new matter has been introduced in the claims. As such, claims 14-18 and 20-21 are currently presented for examination, of which claims 14, 16, and 21 remain as the sole independent claims.

Applicants have also amended the specification to clarify the references to FIGS. 15A, 15B, 15C, 15D, and 15E. Applicants submit that no new matter has been introduced in the specification. To this end, it is clear that the amendments to the specification are clear from the original Drawings, as well as the corresponding description of Drawings. (*See, e.g.*, Specification, page 13). In particular, since FIG. 15E is a graph, it is clear that FIGS. 15A and 15B are a pair and FIGS. 15C and 15D are a pair.

Applicants respectfully traverse the prior art rejections, under 35 U.S.C. §§102(e), 103(a), for the reasons discussed below.

I. Prior Art Rejections Under 35 U.S.C. §102(e), 103(a)

Independent claim 14, as amended, sets forth an optical head, comprising, *inter alia*:

a second light source configured to emit a second light beam having a second wavelength . . .

an optical path synthesizing-separating element that permits the first beam and the second beam to be incident on the objective lens and separates beams reflected from the objective lens, the reflected beams corresponding to the first and second light beams . . .

a converging optical system arranged between the second light source and the optical path synthesizing-separating element, the converging optical system configured to diminish the diverging angle of the diverging light flux emitted from the second light source, *the converging optical system including a convex lens that converts the diverging angle of the diverging light flux into a smaller diverging angle*.

As indicated above, amended independent claim 14 now positively recites that the converging optical system includes a convex lens that converts the diverging angle of the diverging light flux into a smaller diverging angle. This feature is amply supported by the Specification. For example, in describing various embodiments of the present invention, the Specification clearly discloses that the diverging angle of the laser beam, corresponding to the CD having a wavelength of 780 nm emitted from the laser diode **561**, is limited to a predetermined angle by the coupling lens **562** so as to be incident on the prism beam splitter **571** equipped with the wavelength selecting film **572**. (*See, e.g.*, Specification, page 49, lines 18-23; FIG. 12).

In addition, the Specification discloses that the coupling lens **45** in the form of a convex lens, is arranged in addition to the objective lens **39** and collimator **37** in order

to increase the emitting power of the objective lens 39. (*See, e.g.*, Specification, page 41, line 22 – page 42, line 9; FIG. 11).

Unlike the present invention, however, there is nothing in any of the applied references, including the Kim '536, the Kim '841, and the Kim '760 reference, that teach or suggest the combination of features recited in claim 14. In particular, none of the noted references disclose a converging optical system employing a convex lens that converts the diverging angle of the diverging light flux into a smaller diverging angle, as required by amended claim 14. In fact, the elements relied on by the Examiner that allegedly teach this feature are all clearly identified as a collimator – not a convex lens, as recited by claim 14. (*See, e.g.*, Kim '536 reference: col. 3, line 40, FIG. 2; the Kim '841 reference: col. 9, lines 39-40, FIG. 11; and the Kim '760 reference: col. 4, lines 15-16, FIG. 6).

Clearly, because each of the Kim '536, the Kim '841, and the Kim '760 references lack the feature noted above, none of these references can be remotely construed to anticipate independent claim 14. It also stands to reason that, because each of the references suffer from the same deficiencies, the references cannot be combined to render claim 14 unpatentable. Accordingly, none of the applied references, whether taken alone or in any combination, can be relied upon to render claim 14 anticipated or unpatentable, under any provision of 35 U.S.C. §102 or §103.

For the reasons discussed above, Applicants submit that claim 14 is patentably distinguishable over the references of record. Accordingly, withdrawal of the prior art rejections, under 35 U.S.C. §102(e), is respectfully requested. Moreover, because dependent claim 15 depends from independent claim 14, claim 15 is patentable for at least the same reasons presented with respect to claim 14 as well as for its additional recitations.

Furthermore, because independent claims 16 and 21 recite similar features regarding the converging optical system as claim 14, claims 16 and 21 are patentable for at least the reasons presented with respect to claim 14. In addition, because dependent claims 17-18 and 20, all depend from independent claim 16, claims 17-18

and 20 are patentable for at least the same reasons presented with respect to claim 16 as well as for their additional recitations

II. Conclusion

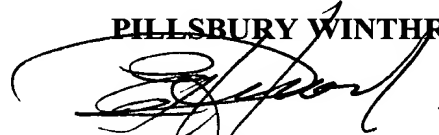
All matters having been addressed, Applicants respectfully requests the entry of this Amendment, the Examiner's reconsideration of this application, and the immediate allowance of pending claims 14-18 and 20-21.

Applicant's Counsel remains ready to assist the Examiner in any way to facilitate and expedite the prosecution of this matter.

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,

PILLSBURY WINTHROP LLP



E. RICO HERNANDEZ

Reg. No. 47641

Tel. No. (703) 905-2088

Fax No. (703) 905-2500

ERH/smm
P.O. Box 10500
McLean, VA 22102
(703) 905-2000